

REMARKS/ARGUMENTS

The Office Action of July 21, 2003, has been carefully considered.

It is noted that claims 12-23 are rejected under 35 U.S.C. §112, second paragraph.

Claims 12-14, 16-19 and 21-23 are rejected under 35 U.S.C. §102(e) over the patent to Weingarten et al.

Claims 15 and 20 are rejected under 35 U.S.C. §103(a) over Weingarten et al. in view of the patent to Rieger et al.

In view of the Examiner's rejections of the claims, Applicant has amended claims 12, 13, 18 and 19.

It is respectfully submitted that the claims now on file particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant has amended the claims in an effort to address the instances of indefiniteness cited by the Examiner. In part of the rejection under 35 U.S.C. §112, second paragraph, the Examiner refers to claims 1 and 3, which are no longer in the application. Thus, Applicants are not sure if the Examiner intended for this rejection to apply to any of claims 12-23. Applicant respectfully submits, however, that there is structural cooperative relationship of the elements. Namely, the first resonator arm, and the second resonator arm, are selectively connected to the common arm by the switching arrangement.

In view of these considerations, it is respectfully submitted that the rejection of claims 12-23 under 35 U.S.C. §112, second paragraph, is overcome and should be withdrawn.

It should be mentioned that the independent claim now on file specifically defines a laser arrangement comprised of a common arm including a pump unit and a pumped laser crystal, a first resonator arm with a passive mode-locking arrangement, a second resonator arm active in an amplifying phase, and a switching arrangement operative to selectively connect the common arm to one of the resonator arms.

It is respectfully submitted that the claims now on file differ essentially and in an unobvious, highly advantageous manner from the constructions disclosed in the references.

Turning now to the references, and particularly to the patent to Weingarten et al., it can be seen that this patent discloses a high-repetition rate passively mod-locked solid-state laser. The teachings of Weingarten et al. only concern the customary concept of a laser with passive mode-locking which is comparable with the presently claimed invention only in so far as the present laser arrangement is operated in the mode-locking phase. Namely, the known laser arrangement of Weingarten et al. only includes passively mode-locking by using a saturable absorber 4 so that the laser structure as disclosed by Weingarten et al. is only similar to the structure of the present laser arrangement in the mode-locking phase, i.e., when comprised of the laser arms 20 and 11. However, Weingarten et al. do not disclose switching means for switching over the laser beam from the mode-locking first resonator arm to another resonator arm so that in combination with the common laser arm an amplification laser arrangement is obtained where a plurality of laser arrangement elements is once again in use, as recited in claim 12. Furthermore, Weingarten et al. do not disclose the specific switching arrangement as recited in claim 14. Weingarten et al. do not in any way disclose or teach a laser arrangement having a common laser part and two alternatively active parts, together with switching means for switching the two active parts so that one active part is connected during the mode-locking phase and another is connected during an amplifying phase, as in the presently claimed invention. Weingarten et al. only disclose a laser structure with mode-locking. Thus, it is believed clear that the element 53 contained in Figure 2 of Weingarten et al., which is referred to by the Examiner, is not a switching arrangement as recited in the presently claimed invention since the element 53 is not operative to switch over between different operating phases of the laser arrangement. It only couples out the laser beam. The corresponding element in the presently claimed invention is the coupling element 5 of the laser beam 7 as directed to further devices, as is well known in the art.

Weingarten et al. do not disclose a separate laser arm active only in the amplifying phase and free of components which would introduce losses, and a corresponding switching element for switching between the first resonator arm for mode locking and the second resonator arm for amplifying.

In view of these considerations, it is respectfully submitted that the rejection of claims 12-14, 16-19 and 21-23 under 35 U.S.C. §102(e) over the above-discussed reference is overcome and should be withdrawn.

The patent to Rieger et al., which was cited in combination with Weingarten et al. in rejecting claims 15 and 20, has also been considered. Since this reference does not come closer to the presently claimed subject matter than the reference discussed above, it is believed that any detailed comments presented at this time would be superfluous. Rieger et al. adds nothing to the teachings of Weingarten et al. which would lead one skilled in the art to the invention as recited in claim 12 and as discussed above. Therefore, it is respectfully submitted that the rejection of claims 15 and 20 under 35 U.S.C. §103(a) over a combination of the above-discussed references is overcome and should be withdrawn.

Reconsideration and allowance of the present application are respectfully requested.

In the event the actual fee is greater than the payment submitted or is inadvertently not enclosed or if any additional fee during the prosecution of this application is not paid, the Patent Office is authorized to charge the underpayment to Deposit Account No. 15-0700.

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